

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Government-Owned Inventions; Availability for Licensing

AGENCY: National Institutes of Health, HHS.

ACTION: Notice.

SUMMARY: The inventions listed below are owned by an agency of the U.S. Government and are available for licensing in the U.S. in accordance with 35 U.S.C. 209 and 37 CFR part 404 to achieve expeditious commercialization of results of federallyfunded research and development. Foreign patent applications are filed on selected inventions to extend market coverage for companies and may also be available for licensing.

FOR FURTHER INFORMATION: Licensing information and copies of the U.S. patent applications listed below may be obtained by writing to the indicated licensing contact at the Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, Rockville, Maryland 20852-3804; telephone: 301-496-7057; fax: 301-402-0220. A signed Confidential Disclosure Agreement will be required to receive copies of the patent applications.

SUPPLEMENTARY INFORMATION: Technology descriptions follow.

T-cell Chimeric Receptors of TSLPR for Diagnosis and Immunotherapy of Cancer

Description of Technology: T-cell-based immunotherapies allow a patient's

immune system to concentrate its efforts and destroy cancer cells. In the present

technology, the researchers at the National Cancer Institute have developed chimeric

antigen receptors (or CARs), which encode an antigen binding domain specific for

thymic stromal lymphopoietin receptor (TSLPR) and a T-cell signaling domain. TSLPR

is over-expressed on the surface of approximately 10% of adult and pediatric B-cell

precursor acute lymphoblastic leukemias (BCP-ALL).

Available for licensing is the above-reference CAR technology as well as

methods for diagnosing and treating cancer using these CARs.

Potential Commercial Applications:

• Immunotherapy against cancer, especially leukemia

Immunotoxins

Competitive Advantages: CAR receptors are specific for TSLPR.

Development Stage:

• In vitro data available

• In vivo data available (animal)

• Prototype

Inventors: Terry Fry and Haiying Qin (NCI)

Publication: Qin H, et al. Pre-clinical development of a novel chimerical antigen receptor targeting high-risk pediatric ALL over-expressing Tslpr. Blood 2013 Nov 15;122(21):2665.

Intellectual Property:

- HHS Reference No. E-008-2014/0 US Provisional Application No. 61/912,948 filed 06 Dec 2013
- HHS Reference No. E-008-2014/1 US Provisional Application No. 61/991,697
 filed 12 May 2014
- HHS Reference No. E-008-2014/2 PCT Application No. PCT/US2014/063096
 filed 30 Oct 2014

Licensing Contact: Patrick McCue, Ph.D.; 301-435-5560; mccuepat@mail.nih.gov

Novel Bridged Bicyclic Thiazepinone Compounds

Description of Technology: The invention is directed to small molecules containing a novel, bridged, bicyclic thiazepinone pharmacophore. Invention compounds inhibit the Nav1.7 sodium channel. Additionally, invention compounds bind the human norepinephrine transporter (NET), with selectivity over the serotonin transporter (SERT) and dopamine transporter (DAT).

Invention compounds could be used to treat neuropathic pain associated with diabetes and fibromyalgia, Attention Deficit Hyperactivity Disorder (ADHD), urinary incontinence, depression, anxiety, and other mood disorders.

Invention compounds can be conjugated with fluorescent or radioactive tags, and used to probe the structure and activity of the Nav1.7 sodium channel and NET.

Potential Commercial Applications:

- Therapeutic
- Chemical probe

Competitive Advantages:

- Small molecule compounds made using facile synthesis scheme
- Inhibition of Nav1.7 sodium channel
- NET inhibition with selectivity over other transporters

Development Stage:

- Early-stage
- In vitro data available

Inventors: Hans F. Luecke (NIDDK), Michael T. Scerba (NIDDK), Dongwook Kang (Daegu Catholic University)

Intellectual Property: HHS Reference No. E-224-2012/0 -

- US Application No. 61/876,262 filed 09 Sept 2013
- PCT Application No. PCT/US2014/054660 filed 09 Sept 2014

Licensing Contact: Lauren Nguyen-Antczak, Ph.D., J.D.; 301-435-4074; nguyenantczakla@mail.nih.gov

Collaborative Research Opportunity: The National Institute of Diabetes and Digestive and Kidney Diseases is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate or commercialize use of

bridged bicyclic thiazepinones. For collaboration opportunities, please contact Marguerite J. Miller, M.B.A. at marguerite.miller@nih.gov or 301-496-9003.

Dated: November 18, 2014.

Richard U. Rodriguez, M.B.A. Acting Director, Office of Technology Transfer, National Institutes of Health.

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